

UNITED STATES PATENT AND TRADEMARK OFFICE  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 7,110,444 B1  
APPLICATION NO. : 09/632856  
DATED : September 19, 2006  
INVENTOR(S) : Sorrells et al.

Page 1 of 4

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

**ON TITLE PAGE**

Item (56)

Under "U.S. Patent Documents", please insert the following citations:

4,870,659	09/1989	Oishi et al.
4,871,987	10/1989	Kawase
4,885,587	12/1989	Wiegand et al.
4,885,756	12/1989	Fontanes et al.
4,888,557	12/1989	Puckette, IV et al.
4,890,302	12/1989	Muilwijk
4,893,316	01/1990	Janc et al.
4,893,341	01/1990	Gehring
4,894,766	01/1990	De Agro
4,896,152	01/1990	Tiemann
4,902,979	02/1990	Puckette, IV
4,908,579	03/1990	Tawfik et al.
4,910,752	03/1990	Yester, Jr. et al.
4,914,405	04/1990	Wells
4,920,510	04/1990	Senderowicz et al.
4,922,452	05/1990	Larsen et al.
4,931,921	06/1990	Anderson
4,944,025	07/1990	Gehring et al.
4,955,079	09/1990	Connerney et al.
4,965,467	10/1990	Bilteerijst
4,967,160	10/1990	Quievy et al.
4,970,703	11/1990	Hariharan et al.
4,982,353	01/1991	Jacob et al.
4,984,077	01/1991	Uchida
4,995,055	02/1991	Weinberger et al.
5,003,621	03/1991	Gailus
5,005,169	04/1991	Bronder et al.
5,006,810	04/1991	Popescu
5,010,585	04/1991	Garcia
5,014,304	05/1991	Nicollini et al.
5,015,963	05/1991	Sutton
5,017,924	05/1991	Guiberteau et al.
5,020,149	05/1991	Hemmie
5,020,154	05/1991	Zierhut
5,052,050	09/1991	Collier et al.
5,065,409	11/1991	Hughes et al.

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Item (56)

Under "Foreign Patent Documents", please insert the following citations:

JP 6-237276	08/1994
JP 8-23359	01/1996
JP 47-2314	02/1972
JP 58-7903	01/1983
JP 58-133004	08/1983
JP 60-58705	04/1985
JP 4-123614	04/1992
JP 4-127601	04/1992
JP 5-175730	07/1993
JP 5-175734	07/1993
JP 7-154344	06/1995
JP 7-307620	11/1995
JP 55-66057	05/1980
JP 63-65587	03/1988
JP 63-153691	06/1988
EP 0 276 130 A2&A3	07/1988

Under "Other Publications", please insert the following citations:

Karasawa, Y. *et al.*, "A New Prediction Method for Tropospheric Scintillation on Earth-Space Paths," *IEEE Transactions on Antennas and Propagation*, IEEE Antennas and Propagation Society, Vol. 36, No. 11, pp. 1608-1614 (November 1988).

Kirsten, J. and Fleming, J., "Undersampling reduces data-acquisition costs for select applications," *EDN*, Cahners Publishing, Vol. 35, No. 13, pp. 217-222, 224, 226-228 (June 21, 1990).

Lam, W.K. *et al.*, "Measurement of the Phase Noise Characteristics of an Unlocked Communications Channel Identifier," *Proceedings Of the 1993 IEEE International Frequency Control Symposium*, IEEE, pp. 283-288 (June 2-4, 1993).

Lam, W.K. *et al.*, "Wideband sounding of 11.6 Ghz transhorizon channel," *Electronics Letters*, IEE, Vol. 30, No. 9, pp. 738-739 (April 28, 1994).

Larkin, K.G., "Efficient demodulator for bandpass sampled AM signals," *Electronics Letters*, IEE, Vol. 32, No. 2, pp. 101-102 (January 18, 1996).

Lau, W.H. *et al.*, "Analysis of the Time Variant Structure of Microwave Line-of-sight Multipath Phenomena," *IEEE Global Telecommunications Conference & Exhibition*, IEEE, pp. 1707-1711 (November 28 - December 1, 1988).

Lau, W.H. *et al.*, "Improved Prony Algorithm to Identify Multipath Components," *Electronics Letters*, IEE, Vol. 23, No. 20, pp. 1059-1060 (September 24, 1987).

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It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Item (56)

Under "Other Publications", please insert the following citations (cont'd):

Lesage, P. and Audoin, C., "Effect of Dead-Time on the Estimation of the Two-Sample Variance," *IEEE Transactions on Instrumentation and Measurement*, IEEE Instrumentation and Measurement Society, Vol. IM-28, No. 1, pp. 6-10 (March 1979).

Liechti, C.A., "Performance of Dual-gate GaAs MESFET's as Gain-Controlled Low-Noise Amplifiers and High-Speed Modulators," *IEEE Transactions on Microwave Theory and Techniques*, IEEE Microwave Theory and Techniques Society, Vol. MTT-23, No. 6, pp. 461-469 (June 1975).

Linnenbrink, T.E. et al., "A One Gigasample Per Second Transient Recorder," *IEEE Transactions on Nuclear Science*, IEEE Nuclear and Plasma Sciences Society, Vol. NS-26, No. 4, pp. 4443-4449 (August 1979).

Liou, M.L., "A Tutorial on Computer-Aided Analysis of Switched-Capacitor Circuits," *Proceedings of the IEEE*, IEEE, Vol. 71, No. 8, pp. 987-1005 (August 1983).

Lo, P. et al., "Coherent Automatic Gain Control," *IEE Colloquium on Phase Locked Techniques*, IEE, pp. 2/1-2/6 (March 26, 1980).

Lo, P. et al., "Computation of Rain Induced Scintillations on Satellite Down-Links at Microwave Frequencies," *Third International Conference on Antennas and Propagation (ICAP 83)*, pp. 127-131 (April 12-15, 1983).

Lo, P.S.L.O. et al., "Observations of Amplitude Scintillations on a Low-Elevation Earth-Space Path," *Electronics Letters*, IEE, Vol. 20, No. 7, pp. 307-308 (March 29, 1984).

Madani, K. and Aithison, C.S., "A 20 Ghz Microwave Sampler," *IEEE Transactions on Microwave Theory and Techniques*, IEEE Microwave Theory and Techniques Society, Vol. 40, No. 10, pp. 1960-1963 (October 1992).

Marsland, R.A. et al., "130 Ghz GaAs monolithic integrated circuit sampling head," *Appl. Phys. Lett.*, American Institute of Physics, Vol. 55, No. 6, pp. 592-594 (August 7, 1989).

Martin, K. and Sedra, A.S., "Switched-Capacitor Building Blocks for Adaptive Systems," *IEEE Transactions on Circuits and Systems*, IEEE Circuits and Systems Society, Vol. CAS-28, No. 6, pp. 576-584 (June 1981).

Marzano, F.S. and d'Auria, G., "Model-based Prediction of Amplitude Scintillation variance due to Clear-Air Tropospheric Turbulence on Earth-Satellite Microwave Links," *IEEE Transactions on Antennas and Propagation*, IEEE Antennas and Propagation Society, Vol. 46, No. 10, pp. 1506-1518 (October 1998).

Matricciani, E., "Prediction of fade durations due to rain in satellite communication systems," *Radio Science*, American Geophysical Union, Vol. 32, No. 3, pp. 935-941 (May-June 1997).

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Section (56)

Under "Other Publications", please insert the following citations (cont'd):

McQueen, J.G., "The Monitoring of High-Speed Waveforms," *Electronic Engineering*, Morgan Brothers Limited, Vol. XXIV, No. 296, pp. 436-441 (October 1952).

he This certificate supersedes certificate of correction  
issued August 7, 2007.

Signed and Sealed this

Sixteenth Day of August, 2007

UNITED STATES PATENT AND TRADEMARK OFFICE  
Washington, DC 20503